

## **A framework to construct data quality dimensions relationships**

### **ABSTRACT**

Data and information obtained from data analysis is an essential asset to construct and support information systems. As data is a significant resource, the quality of data is critical to enhance data quality and increase the effectiveness of business processes. Relationships among all four major data quality dimensions for process improvement are often neglected. For this reason, this study proposes to construct a reliable framework to support process activities in information systems. This study focuses on four critical quality dimensions; accuracy, completeness, consistency, and timeliness. A qualitative approach was conducted using a questionnaire and the responses were assessed to measure reliability and validity of the survey. Factor analysis and Cronbach-alpha test were applied to interpret the results. The results show that the items of each data quality dimension and improvement process are reliable and valid. This framework can be used to evaluate data quality in an information system to improve the involved process.

**Keyword:** Data quality dimension; Framework; Relationship; Validation; Information systems; Factor analyzing